



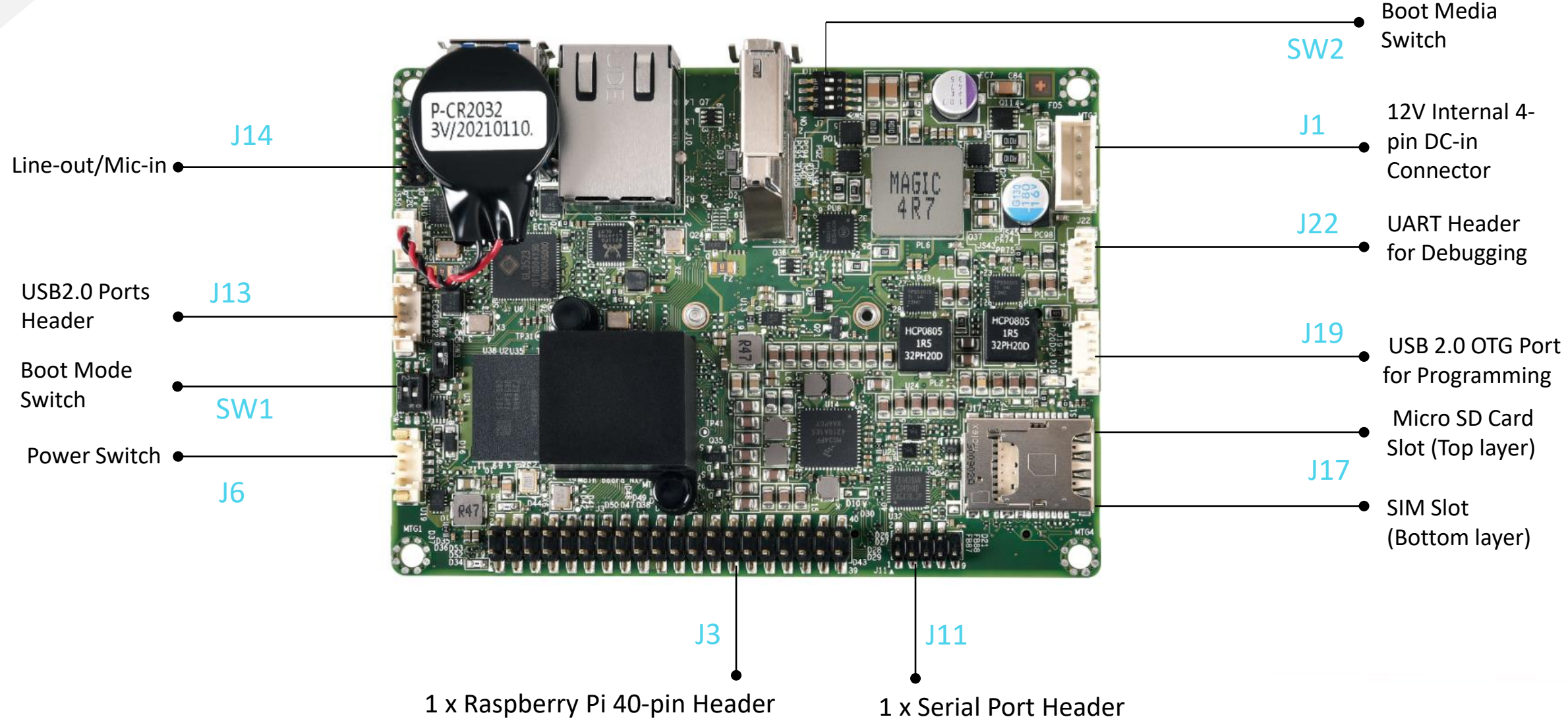
# MiTAC

## ND118T

### User Manual

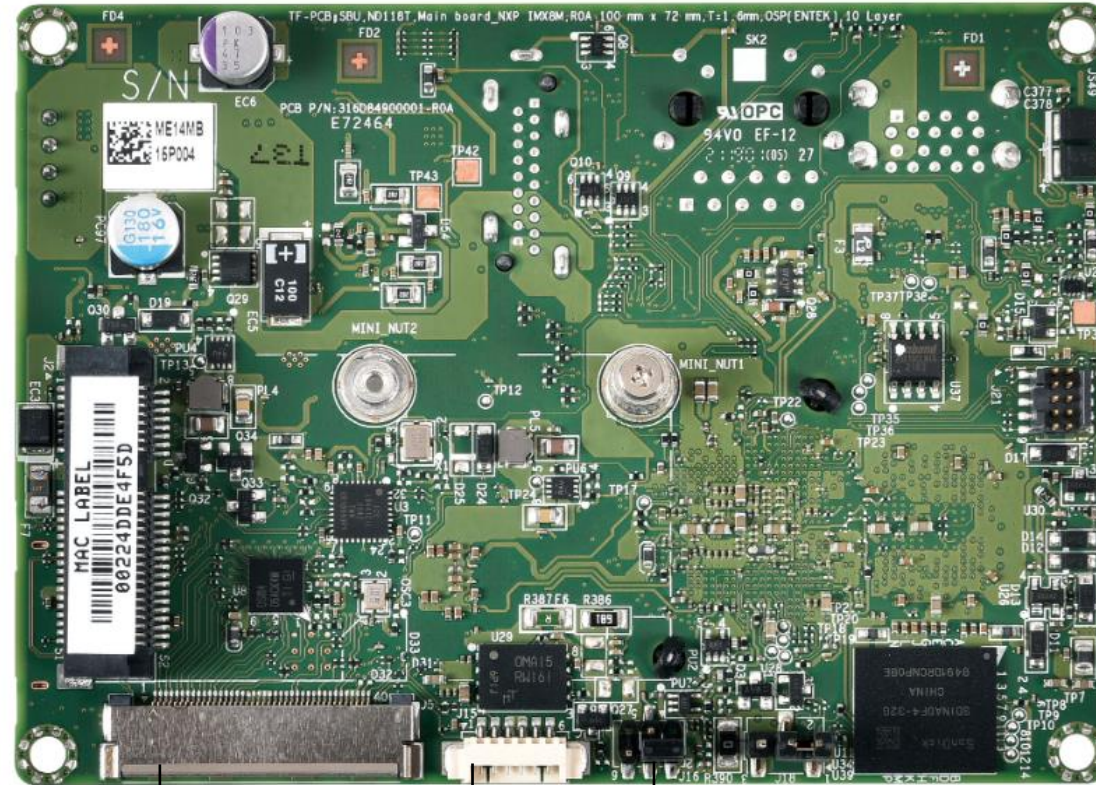
V1.0

# MB Placement (Top View)





# MB Placement (Bottom View)



J5

LVDS Connector

J15

LVDS Power Header

J16

LVDS Power Jumper

J18

Backlight Power Jumper



Empowering a Connected World of Infinite Possibilities

# Pin Definition (1/5)

J1

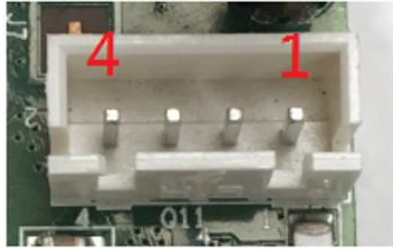


Figure 1: DC IN Connector (J1)

Pin	Signal
1	+12V
2	+12V
3	Ground
4	Ground

Table 1 : DC IN Connector pin-out reference

Vendor: Joint Tech  
Model: A2501WV-04P146

J19



Figure 2: USB 2.0 Header for programming (J19)

Pin	Signal
1	5V_USB
2	Data (negative)
3	Data (positive)
4	Ground
5	NC

Table 2: 5-pin USB 2.0 header Pin out reference

Vendor: Molex  
Model: 53398-0571

# Pin Definition (2/5)

J13

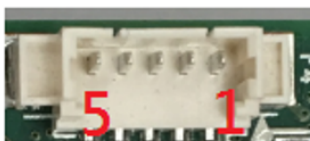


Figure 3: Single USB2.0 pin-out for normal use (J13)

Pin	Signal
1	5V_USB
2	Data (negative)
3	Data (positive)
4	Ground
5	NC

Table 3: Single USB 2.0 Header

Vendor: Molex  
Model: 53398-0571

J22



Figure 4: UART pin-out for Debug (J22)

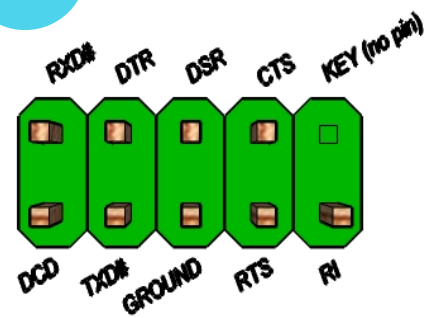
Pin	Signal
1	5V
2	UART Transmission
3	UART Receive
4	Ground

Table 4: UART Header Pin out reference

Vendor: Aces Electronics  
Model: 85205-04701

# Pin Definition (3/5)

J11

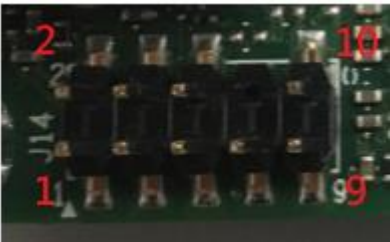


Serial port header pin-out (J11)

Pin	Signal Name
1	DCD
2	RXD#
3	TXD#
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI
10	Key

Vendor: SUPERIOR TECH  
Model: PHDD-SS010G1ABONE-N088

J14



Audio Header (J14)

Pin	Signal
1	MIC_L
2	GND
3	MIC_R
4	N.C
5	LINE_OUT_R
6	N.C
7	Plug detection
8	Key (no pin)
9	LINE_OUT_L
10	N.C

Vendor: SUPERIOR TECH  
Model: PHDD-SS010G1ABONE-N098

# Pin Definition (4/5)

J3



Raspberry Pi 40-pin header

GPIO#	2 <sup>nd</sup> Func	Pin#	Pin#	2 <sup>nd</sup> Func	GPIO#
N/A	+3V3	1	2	+5V	N/A
GPIO2	SDA1(I2C)	3	4	+5V	N/A
GPIO3	SCL1(I2C)	5	6	Ground	N/A
GPIO4	GCLK	7	8	UART0_TXD	GPIO14
N/A	Ground	9	10	UART0_RXD	GPIO15
GPIO17	GEN0	11	12	GEN1	GPIO18
GPIO27	GEN2	13	14	Ground	N/A
GPIO22	GEN3	15	16	GEN4	GPIO23
N/A	+3V3	17	18	GEN5	GPIO24
GPIO10	MOSI(SPI)	19	20	Ground	N/A
GPIO9	MISO(SPI)	21	22	GEN6	GPIO25
GPIO11	SCLK(SPI)	23	24	CE0_N(SPI)	GPIO8
N/A	Ground	25	26	CE1_N(SPI)	GPIO7
EEPROM	ID_SD	27	28	ID_SC	EEPROM
GPIO5	N/A	29	30	Ground	N/A
GPIO6	N/A	31	32	-	GPIO12
GPIO13	N/A	33	34	Ground	N/A
GPIO19	N/A	35	36	N/A	GPIO16
GPIO26	N/A	37	38	N/A	GPIO20
N/A	Ground	39	40	N/A	GPIO21

Vendor: SUPERIOR TECH  
Model: PHED-SS040G1ABONE-B003

J6



Power BTN/RST header (J6)

Pin	Signal
1	PWRBTN_ON_OFF
2	GND
3	GND
4	Reset

Vendor: Joint Tech  
Model: A1250WV-S-04PR6NGAG00L

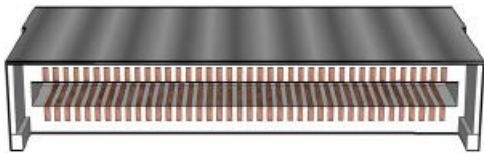




# Pin Definition (5/5)

J5

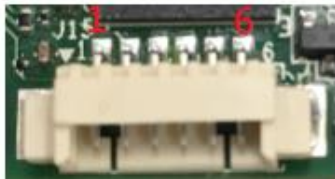
LVDS Connector (J5)



Aces Electronic  
Model: 50203-04001-001

Pin	Signal	Description
1	TD0P	LVDS Channel A diff data output - positive
2	TD0N	LVDS Channel A diff data output - negative
3	TC0P	LVDS Channel A diff data output - positive
4	TC0N	LVDS Channel A diff data output - negative
5	TB0P	LVDS Channel A diff data output - positive
6	TB0N	LVDS Channel A diff data output - negative
7	TA0P	LVDS Channel A diff data output - positive
8	TA0N	LVDS Channel A diff data output - negative
9	TD1P	LVDS Channel B diff data output-positive
10	TD1N	LVDS Channel B diff data output-negative
11	TC1P	LVDS Channel B diff data output-positive
12	TC1N	LVDS Channel B diff data output-negative
13	TB1P	LVDS Channel B diff data output-positive
14	TB1N	LVDS Channel B diff data output-negative
15	TA1P	LVDS Channel B diff data output-positive
16	TA1N	LVDS Channel B diff data output-negative
17	GND	Ground
18	3.3V/5V/12V	Selectable LCD power output
19	3.3V/5V/12V	Selectable LCD power output
20	3.3V/5V/12V	Selectable LCD power output
21	3.3V/5V/12V	Selectable LCD power output
22	3.3V/5V/12V	Selectable LCD power output
23	GND	Ground
24	GND	Ground
25	GND	Ground
26	TCK0P	LVDS Channel A diff data output - positive
27	TCK0N	LVDS Channel A diff data output - negative
28	GND	Ground
29	GND	Ground
30	GND	Ground
31	DDC_SCL	LVDS_DDC_SCL
32	DSI_LVDS_BL_EN	
33	DSI_LVDS_BL_CTRL	
34	TCK1P	LVDS Channel B diff data output - positive
35	TCK1N	LVDS Channel B diff data output - negative
36	BKLT_PWR	Selectable BKLT power output
37	BKLT_PWR	Selectable BKLT power output
38	BKLT_PWR	Selectable BKLT power output
39	BKLT_PWR	Selectable BKLT power output
40	DDC_SDA	LVDS_DDC_SDA

J15



LVDS inverter power header pin-out (J15)

Pin	Signal Name	Description
1	LVDS_BKTEN_R	Backlight enable
2	LVDS_PWM	Backlight PWM control
3	12V/5V	Inverter power
4	12V/5V	Inverter power
5	GND	Ground
6	GND	Ground

Joint Tech Electronic  
Model: A1250WRA-S-06P



# Jumper Setting for Panel

## J18 Backlight power voltage selection header



Pins 1&2: jumper position for 12V

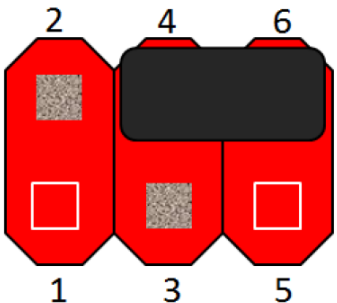


Pins 2&3: jumper position for VCC

Pin	Signal Name
1	12V
2	BKLT_PWR
3	VCC (5V)

Table 1: Inverter power voltage selection header signals

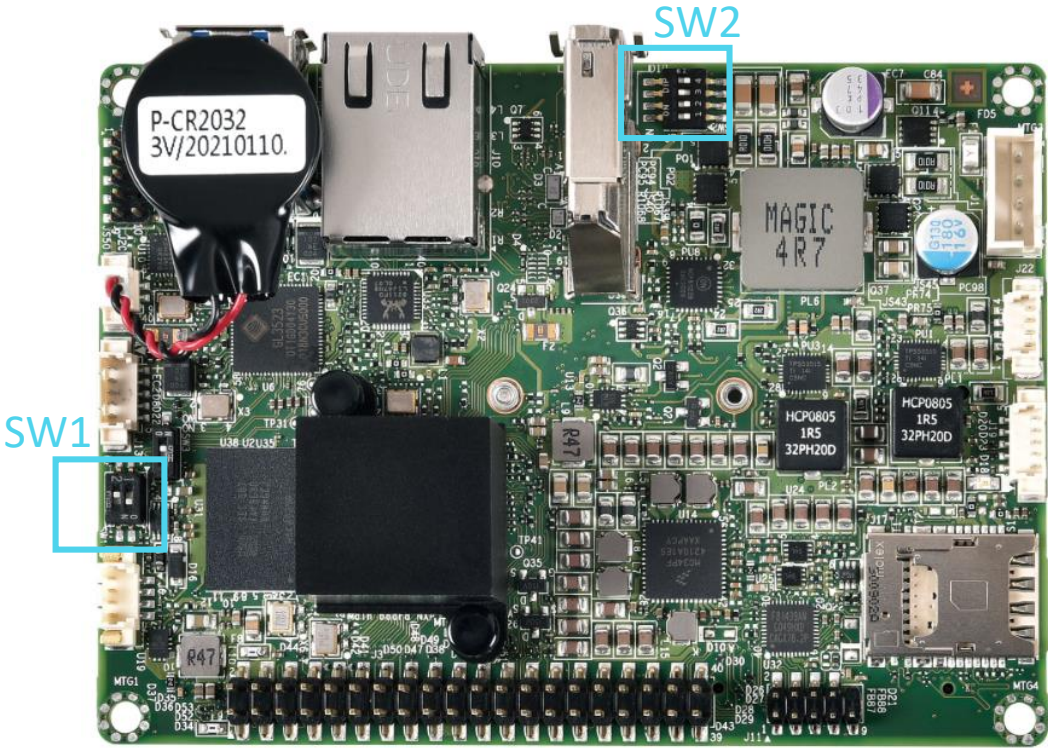
## J16 LVDS Panel power voltage selection header



Pin	Signal Name	Description
1	NC	NC
2	VCC3	+3.3V
3	12V	12V
4	PANEL_PWR	[Out] output panel power
5	NC	NC
6	VCC	+5V

Table 3: LVDS panel power header signals

# DIP Switch Setting



SW1 (Boot Mode DIP)		
DIP1	DIP2	Boot Source
OFF	ON	Serial Download Mode
ON	OFF	Internal Boot Mode

SW2 (Boot Media DIP)				
DIP1	DIP2	DIP3	DIP4	Boot Media Configuration
OFF	OFF	ON	OFF	eMMC
ON	ON	OFF	OFF	microSD



# How to insert the Micro SD card

